

1 Claims

2 **I claim:**

- 3 1. A spray paint gun comprising
4 a gun body having a male thread, and
5 an air nozzle ring having female thread, the female thread being adapted to be
6 screwed onto the male thread,
7 wherein the thread is a trapezoid thread having a flank angle in the range of about
8 +/- 20% of 30°, wherein the diameter of the thread is between about 30 and about 40 mm
9 and wherein
10 a. the thread height is within the range of about +/- 20% of 1.1 mm,
11 b. the root to crest clearance is within the range of about +/- 20% of 0.1 mm,
12 c. the flank clearance is within the range of about +/- 20% of 0.15 mm.
- 13 2. A spray gun according to claim 1, wherein the pitch is in the range of about +/-
14 20% of 2.5 mm.
- 15 3. A spray gun according to claim 1, wherein the core diameter and the outer
16 diameter of the male thread of the gun body have a tolerance in the range of about +/-
17 20% of -0.05 mm, respectively.

4. A spray gun according to claim 2, wherein the core diameter and the outer diameter of the male thread of the gun body have a tolerance in the range of about $\pm 20\%$ of -0.05 mm, respectively.

5. A spray gun according to claim 1, wherein the core diameter and the outer diameter of the female thread of the air nozzle ring have a tolerance in the range of about $\pm 20\%$ of $+0.1$ mm, respectively.

6. A spray gun according to claim 2, wherein the core diameter and the outer diameter of the female thread of the air nozzle ring have a tolerance in the range of about $\pm 20\%$ of $+0.1$ mm, respectively.

7. A spray gun according to claim 3, wherein the core diameter and the outer diameter of the female thread of the air nozzle ring have a tolerance in the range of about $\pm 20\%$ of $+0.1$ mm, respectively.

8. A spray gun according to claim 4, wherein the core diameter and the outer diameter of the female thread of the air nozzle ring have a tolerance in the range of about $\pm 20\%$ of $+0.1$ mm, respectively.

1 9. A spray gun according to claim 2, wherein the pitch has a tolerance in the range of
2 about +/- 20% of +/- 0.1 mm.

3 10. A spray gun according to claim 1, wherein the nominal diameter of the trapezoid
4 thread is about 38 mm.

5 11. A spray gun according to claim 2, wherein the nominal diameter of the trapezoid
6 thread is about 38 mm.